

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
17 July 2003 (17.07.2003)

PCT

(10) International Publication Number
WO 03/057961 A2(51) International Patent Classification⁷:

D04H

(74) Agent: DAVIDSON, Bryan, H.; Nixon & Vanderhye P.C.,
Suite 800, 1100 North Glebe Road, Arlington, VA 22201-
4714 (DE).

(21) International Application Number: PCT/US03/00101

(22) International Filing Date: 2 January 2003 (02.01.2003)

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language:

English

(26) Publication Language:

English

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI,
SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(30) Priority Data:

60/344,042 3 January 2002 (03.01.2002) US

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventors; and

(75) Inventors/Applicants (for US only): KHAN, Ahamad,
Y., A. [US/US]; 10855 Sandringham Road, Cockeysville,
MD 21030 (US). RUDOLPH, James, E., Jr. [US/US];
3016 Greystone Drive, Pace, FL 32571 (US). MC-
DONOGH, Richard, M. [AU/US]; 4141 Worsch Way,
San Diego, CA 92130 (US). WANG, I-Fan [US/US];
12037 Mil Pitero Road, San Diego, CA 92128 (US).

WO 03/057961 A2

(54) Title: BREATHABLE NON-WETTABLE MELT-BLOWN NON-WOVEN MATERIALS AND PRODUCTS EMPLOYING
THE SAME

(57) Abstract: Breathable non-wettable non-woven materials include a mass of melt-blown, non-woven fibers formed of a terpolymer of tetrafluoroethylene, hexafluoropropylene and vinylidene fluoride monomers. Most preferably, the materials of the present invention are in the form of fabric structures which can be processed to form a variety of products for numerous end use applications, such as for garments, bandages, barrier vents, filter media and the like. In especially preferred form, the melt-blown non-woven fibers are comprised of a THV terpolymer formed of between about 30 to about 70 wt.% of tetrafluoroethylene monomer, between about 10 to about 20 wt.% of hexafluoropropylene monomer, and between about 20 to about 65 wt.% vinylidene fluoride monomer.